

**Subject: Daily status report**

End of Day Status Report May 26 2010 Walton Smith:

- Station WS1 at 1600 meters (m) water depth. This station had a very strong CDOM peak at 740m and 1150m during the Pelican cruise. We saw a very small peak in CDOM but the sensor was set on the lowest sensitivity level. Tripped bottles@ 6 depths (using Pelican data as target) and sampled according to standard protocols
- Station WS1 at 1580m water depth. Repeated the cast to sample the observed minor CDOM anomalies but they were so low we elected to bring the rosette back up to the surface. Did not trip any bottles.
- Station WS1. Switched to CDOM sensor; still nothing. Checked ADCP data and the plume appears to have moved North. So we will bring the rosette back up and transit 1 mile North and try a profile there.
- Station WS2 at 1550m water depth. Found the plume!!! We moved 1 mile due N of our previous position and there it was. We are 2.5 miles from GZ at a water depth of 1504m. The plume had several distinct layers between 800m and 1300m. Very high CDOM at the bottom of the plume but no oxygen depletion. Perhaps this is a new infusion of CDOM and there has not been much reaction yet. Will collect samples here for CH<sub>4</sub>, O<sub>2</sub>, oil, take home water, DNA from all depths and POC only from the lower (1310) and middle (1120) plume regions. Very exciting.
- Station WS2. Sent down two GoFlo bottles on the hydrowire. Collected metals, CDOM, methane gas, and oil samples.
- Station WS3. Attempting to find the leading edge of the plume; 0.5 miles N of WS2. Found a deep (1280-1340m) feature with increased CDOM and trans; at 930m, pronounced trans peak and O<sub>2</sub> depletion; at 800m, small increase in CDOM, no oxygen anomaly. Very different from other profile

#### Summary of Attachments

1. Excel spreadsheet containing station specific information on samples.
2. Shape file of station locations which can be imported to mapping software.
3. pdf graphic based on shape file showing all stations (today's stations highlighted in blue).
4. CTD plots for today's stations.

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